

**What is claimed is:**

1. A method for coordinating supplemental data transmissions with broadcast data transmitted by a plurality of broadcasters, the method comprising:

receiving schedule information for each of a plurality of broadcasters, the

5 schedule information including a schedule of broadcast data to be transmitted by each broadcaster at predetermined times;

identifying, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

determining supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

transmitting at least a portion of the supplemental digital data to the first broadcaster prior to the predetermined time.

2. The method of claim 1, wherein the plurality of broadcasters comprise a plurality of radio stations.

3. The method of claim 2, wherein the broadcast data comprises analog data transmitted to listeners over a radio frequency.

4. The method of claim 3, wherein the transmission of broadcast data comprises transmission of broadcast data over at least one of an amplitude-modulated radio frequency and a frequency-modulated radio frequency.

5. The method of claim 4, wherein the supplemental digital data for transmission on a side-band of one of: the amplitude-modulated (AM) radio frequency and the frequency-modulated (FM) radio frequency.

5 6. The method of claim 1, wherein said receiving comprises receiving said schedule information on an Internet gateway.

7. The method of claim 1, wherein said transmitting comprises transmitting said supplemental digital data on an Internet gateway.

10 8. The method of claim 1, wherein the broadcast data comprises an audio track.

15 9. The method of claim 8, wherein the supplemental digital data comprises multimedia information related to the audio track.

10. The method of claim 9, wherein the supplemental data comprises a text description of at least one of: an artist, a title, and identification data corresponding to the audio track.

20 11. The method of claim 1, wherein the broadcast data comprises audio data corresponding to a sporting event.

12. The method of claim 11, wherein the supplemental digital data comprises multimedia information related to the audio data.

13. The method of claim 12, wherein the supplemental digital data comprises text data corresponding to at least one of:

a team, a game score, a player and a statistic corresponding to the sporting event.

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14. The method of claim 1, wherein the supplemental digital data is unrelated to the broadcast data.

15. The method of claim 14, wherein the supplemental digital data comprises at least one of:

an advertisement for a product, an advertisement for a service, an identification of the first broadcaster, a schedule of further broadcast data for the first broadcaster, a traffic report, a weather report and a news report.

16. The method of claim 1, wherein the supplemental digital data comprises a plurality of multimedia presentations to be simultaneously presented to the receiver of the broadcast data.

17. The method of claim 1, wherein said determining further comprises:  
determining said supplemental digital data based on at least one of: a type of the scheduled broadcast data, the time of the broadcast data, a geographic location of the first broadcaster, a broadcast program in which the broadcast data is presented, and demographic information of listeners of the broadcast data.

18. The method of claim 1, wherein the supplemental digital data for broadcast on a mask of one of an amplitude-modulated frequency and a frequency-modulated frequency.

5 19. The method of claim 1, further comprising:  
 receiving, from the first broadcaster, a change to schedule information including second broadcast data at the first predetermined time; and  
 determining second supplemental digital data to be presented to listeners of the second broadcast data; and  
 10 transmitting the second supplemental digital data to the first broadcaster before the first predetermined time.

15 20. The method of claim 1, further comprising:  
 identifying, from the received schedule information, second broadcast data for transmission by a second broadcaster at a predetermined time;  
 determining second supplemental digital data to be presented to listeners of the second broadcast data on a digital data receiver; and  
 20 transmitting the second supplemental digital data to the second broadcaster prior to the predetermined time.

21. The method of claim 1, further comprising:  
 identifying, from the received schedule information, broadcast data for transmission by a second broadcaster at a second predetermined time;

determining second supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

transmitting the second supplemental digital data to the second broadcaster prior to the second predetermined time.

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22. The method of claim 1, wherein said supplemental digital data comprises advertising data sold by the first broadcaster.

23. The method of claim 1, wherein said supplemental digital data comprises advertising data sold by a party other than the first broadcaster.

24. The method of claim 1, wherein a time for presentation of the supplemental digital data is selectable by the listener.

25. The method of claim 1, wherein said selecting comprises selecting a group of supplemental digital data to be presented to a listener of the broadcast data.

26. The method of claim 25, wherein the group of supplemental data are to be displayed continuously during a length of the broadcast data.

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27. The method of claim 25, wherein the group of supplemental data are to be presented sequentially during a length of the broadcast data.

28. The method of claim 1, wherein the supplemental data is to be presented during at least a portion of a length of the broadcast data.

29. A computer-readable medium encoded with processing instructions for  
5 implementing a method, performed by a computer, for coordinating supplemental data transmissions with broadcast data transmitted by a plurality of broadcasters, the method comprising:

receiving schedule information for each of a plurality of broadcasters, the  
schedule information including a schedule of broadcast data to be transmitted by each  
10 broadcaster at predetermined times;

identifying, from the received schedule information, broadcast data for  
transmission by a first broadcaster at a predetermined time;

determining supplemental digital data to be presented to listeners of the broadcast  
data on a digital data receiver; and

15 transmitting the supplemental digital data to the first broadcaster prior to the  
predetermined time.

30. An apparatus for coordinating supplemental data transmissions with broadcast  
data transmitted by a plurality of broadcasters, comprising:

20 means for receiving schedule information for each of a plurality of broadcasters,  
the schedule information including a schedule of broadcast data to be transmitted by each  
broadcaster at predetermined times;

means for identifying, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

means for determining supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

5 means for transmitting the supplemental digital data to the first broadcaster prior to the predetermined time.

31. An apparatus for coordinating supplemental data transmissions with broadcast data transmitted by a plurality of broadcasters, comprising:

10 a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

15 receive schedule information for each of a plurality of broadcasters, the schedule information including a schedule of broadcast data to be transmitted by each broadcaster at predetermined times;

identify, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

determine supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

20 transmit the supplemental digital data to the first broadcaster prior to the predetermined time.

32. A method for providing supplemental digital data for presentation to a listener of

broadcast data, comprising:

receiving schedule information from a plurality of broadcasters, the schedule information including a schedule of broadcast data to be transmitted by each broadcaster at predetermined times;

5 receiving, from a first broadcaster, an identification of particular broadcast data to be transmitted at a predetermined time;

receiving, from the first broadcaster, a copy order for a digital copy to be transmitted to listeners of the particular broadcast data at the predetermined time;

generating supplemental digital data corresponding to the digital copy; and

10 transmitting the supplemental digital data to the first broadcaster for presentation to a listener of the broadcast data.

33. The method of claim 32, wherein the plurality of broadcasters comprise a plurality of radio stations.

15 34. The method of claim 33, wherein the broadcast data comprises analog data transmitted to listeners over a radio frequency.

20 35. The method of claim 34, wherein the transmission of broadcast data comprises transmission of broadcast data over at least one of an amplitude-modulated radio frequency and a frequency-modulated radio frequency.



36. The method of claim 35, wherein the supplemental digital data for transmission on a side-band of one of: the amplitude-modulated radio frequency and the frequency-modulated radio frequency.

5 37. The method of claim 32, wherein said receiving comprises receiving said schedule information on an Internet gateway.

38. The method of claim 32, wherein said transmitting comprises transmitting said supplemental digital data on an Internet gateway.

10 39. The method of claim 32, wherein the broadcast data comprises an audio track.

40. The method of claim 39, wherein the supplemental digital data comprises multimedia information related to the audio track.

15 41. The method of claim 40, wherein the supplemental data comprises a text description of at least one of: an artist, a title, and identification data corresponding to the audio track.

20 42. The method of claim 32, wherein the broadcast data comprises audio data corresponding to a sporting event.

43. The method of claim 42, wherein the supplemental digital data comprises multimedia information related to the audio data.

44. The method of claim 43, wherein the supplemental digital data comprises text data corresponding to at least one of:

a team, a game score, a player and a statistic corresponding to the sporting event.

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45. The method of claim 32, wherein the supplemental digital data is unrelated to the broadcast data.

46. The method of claim 45, wherein the supplemental digital data comprises at least one of:

an advertisement for a product, an advertisement for a service, an identification of the first broadcaster, a schedule of further broadcast data for the first broadcaster, a traffic report, a weather report and a news report.

47. The method of claim 32, wherein the supplemental digital data comprises a plurality of multimedia presentations to be simultaneously presented to the receiver of the broadcast data.

48. The method of claim 32, wherein said determining further comprises:  
determining said supplemental digital data based on at least one of: a type of the scheduled broadcast data, the time of the broadcast data, a geographic location of the first broadcaster, a broadcast program in which the broadcast data is presented, and demographic information of listeners of the broadcast data.

49. The method of claim 32, wherein the supplemental digital data for broadcast on a mask of one of an amplitude-modulated frequency and a frequency-modulated frequency.

5 50. The method of claim 32, further comprising:  
 receiving, from the first broadcaster, a change to schedule information including second broadcast data at the first predetermined time; and  
 determining second supplemental digital data to be presented to listeners of the second broadcast data; and  
 10 transmitting the second supplemental digital data to the first broadcaster before the first predetermined time.

15 51. The method of claim 32, further comprising:  
 identifying, from the received schedule information, second broadcast data for transmission by a second broadcaster at a predetermined time;  
 determining second supplemental digital data to be presented to listeners of the second broadcast data on a digital data receiver; and  
 20 transmitting the second supplemental digital data to the second broadcaster prior to the predetermined time.

52. The method of claim 32, further comprising:  
 identifying, from the received schedule information, broadcast data for transmission by a second broadcaster at a second predetermined time;

determining second supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

transmitting the second supplemental digital data to the second broadcaster prior to the second predetermined time.

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53. The method of claim 32, wherein said supplemental digital data comprises advertising data sold by the first broadcaster.

54. The method of claim 32, wherein said supplemental digital data comprises advertising data sold by a party other than the first broadcaster.

55. The method of claim 32, wherein a time for presentation of the supplemental digital data is selectable by the listener.

56. The method of claim 32, wherein said selecting comprises selecting a group of supplemental digital data to be presented to a listener of the broadcast data.

57. The method of claim 56, wherein the group of supplemental data are to be displayed continuously during a length of the broadcast data.

58. The method of claim 56, wherein the group of supplemental data are to be presented sequentially during a length of the broadcast data.

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59. The method of claim 32, wherein the supplemental data is to be presented during at least a portion of a length of the broadcast data.

60. A computer-readable medium encoded with processing instructions for  
 5 implementing a method for providing supplemental digital data for presentation to a listener of broadcast data, the method comprising:

receiving schedule information from a plurality of broadcasters, the schedule information including a schedule of broadcast data to be transmitted by each broadcaster at predetermined times;

10 receiving, from a first broadcaster, an identification of particular broadcast data to be transmitted at a predetermined time;

receiving, from the first broadcaster, a copy order for a digital copy to be transmitted to listeners of the particular broadcast data at the predetermined time;

generating supplemental digital data corresponding to the digital copy; and

15 transmitting the supplemental digital data to the first broadcaster for presentation to a listener of the broadcast data.

61. An apparatus for providing supplemental digital data for presentation to a listener of broadcast data, comprising:

20 means for receiving schedule information from a plurality of broadcasters, the schedule information including a schedule of broadcast data to be transmitted by each broadcaster at predetermined times;

means for receiving, from a first broadcaster, an identification of particular

broadcast data to be transmitted at a predetermined time;

means for receiving, from the first broadcaster, a copy order for a digital copy to be transmitted to listeners of the particular broadcast data at the predetermined time;

means for generating supplemental digital data corresponding to the digital copy;

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means for transmitting the supplemental digital data to the first broadcaster for presentation to a listener of the broadcast data.

62. An apparatus for providing supplemental digital data for presentation to a listener of broadcast data, comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

receive schedule information from a plurality of broadcasters, the schedule information including a schedule of broadcast data to be transmitted by each broadcaster at predetermined times;

receive, from a first broadcaster, an identification of particular broadcast data to be transmitted at a predetermined time;

receive, from the first broadcaster, a copy order for a digital copy to be transmitted to listeners of the particular broadcast data at the predetermined time;

generate supplemental digital data corresponding to the digital copy; and

transmit the supplemental digital data to the first broadcaster for presentation to a listener of the broadcast data.

63. A method for selling advertising presented as supplemental digital data to listeners of broadcast data, the method comprising:

providing, to a broadcaster, at least one of: hardware and software for receiving

5 supplemental digital data to be presented to listeners of the broadcaster;

receiving, from the broadcaster, advertising space for supplemental digital data;

and

selling the advertising space to an advertiser.

10 64. The method of claim 63, wherein the broadcaster comprises a radio station.

65. A computer readable medium encoded with processing instructions for implementing a method for selling advertising presented as supplemental digital data to listeners of broadcast data, the method comprising:

15 offering, to a broadcaster, at least one of: hardware and software for receiving supplemental digital data to be presented to listeners of the broadcaster;

receiving, from the broadcaster, a confirmation of advertising space for supplemental digital data; and

offering the advertising space to an advertiser.

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66. An apparatus for selling advertising presented as supplemental digital data to listeners of broadcast data, the method comprising:

means for offering, to a broadcaster, at least one of: hardware and software for receiving supplemental digital data to be presented to listeners of the broadcaster;

means for receiving, from the broadcaster, a confirmation of advertising space for supplemental digital data; and

5 means for offering the advertising space to an advertiser.

67. An apparatus for selling advertising presented as supplemental digital data to listeners of broadcast data, the method comprising:

a processor; and

10 a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

offer, to a broadcaster, at least one of: hardware and software for receiving supplemental digital data to be presented to listeners of the broadcaster;

15 receive, from the broadcaster, a confirmation of advertising space for supplemental digital data; and

offer the advertising space to an advertiser.

68. A method for receiving supplemental digital data from a supplemental digital data provider, comprising:

20 transmitting, to a supplemental digital data provider, schedule information including a time when particular broadcast data is to be transmitted to a group of listeners by a broadcaster;



receiving, from the supplemental digital data provider, supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver.

69. The method of claim 68, further comprising:

transmitting the supplemental digital data to the group of listeners.

70. The method of claim 68, wherein the supplemental digital data comprises advertising data sold by the broadcaster.

71. The method of claim 68, wherein the supplemental digital data comprises advertising data sold by the supplemental digital data provider.

72. The method of claim 68, wherein the broadcaster comprises a radio station.

73. The method of claim 68, wherein the broadcast data comprises analog data transmitted to listeners over a radio frequency.

74. The method of claim 68, wherein the transmission of broadcast data comprises transmission of broadcast data over at least one of an amplitude-modulated radio frequency and a frequency-modulated radio frequency.

75. The method of claim 74, wherein the supplemental digital data for transmission on a side-band of one of: the amplitude-modulated radio frequency and the frequency-modulated radio frequency.

5 76. The method of claim 68, wherein said receiving comprises receiving said schedule information on an Internet gateway.

77. The method of claim 68, wherein said transmitting comprises transmitting said supplemental digital data on an Internet gateway.

40 78. The method of claim 68, wherein the broadcast data comprises an audio track.

79. The method of claim 68, wherein the supplemental digital data comprises multimedia information related to the audio track.

5 80. The method of claim 79, wherein the supplemental data comprises a text description of at least one of: an artist, a title, and identification data corresponding to the audio track.

81. The method of claim 68, wherein the broadcast data comprises audio data  
20 corresponding to a sporting event.

82. The method of claim 81, wherein the supplemental digital data comprises multimedia information related to the audio data.

83. The method of claim 82, wherein the supplemental digital data comprises text data corresponding to at least one of:

a team, a game score, a player and a statistic corresponding to the sporting event.

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84. The method of claim 68, wherein the supplemental digital data is unrelated to the broadcast data.

85. The method of claim 84, wherein the supplemental digital data comprises at least one of:

an advertisement for a product, an advertisement for a service, an identification of the first broadcaster, a schedule of further broadcast data for the first broadcaster, a traffic report, a weather report and a news report.

86. The method of claim 68, wherein the supplemental digital data comprises a plurality of: multimedia presentations to be simultaneously presented to the receiver of the broadcast data.

87. The method of claim 68, wherein said supplemental digital data is selected based on at least one of: a type of the scheduled broadcast data, the time of the broadcast data, a geographic location of the first broadcaster, a broadcast program in which the broadcast data is presented, and demographic information of listeners of the broadcast data.

88. The method of claim 68, wherein the supplemental digital data for broadcast on a mask of one of an amplitude-modulated frequency and a frequency-modulated frequency.

89. The method of claim 68, wherein said supplemental digital data comprises  
5 advertising data sold by the first broadcaster.

90. The method of claim 68, wherein said supplemental digital data comprises advertising data sold by a party other than the first broadcaster.

10 91. The method of claim 68, wherein a time for presentation of the supplemental digital data is selectable by the listener.

92. The method of claim 68, wherein said receiving comprises receiving a group of supplemental digital data to be presented to a listener of the broadcast data.

15 93. The method of claim 92, wherein the group of supplemental data are to be displayed continuously during a length of the broadcast data.

20 94. The method of claim 92, wherein the group of supplemental data are to be presented sequentially during a length of the broadcast data.

95. The method of claim 68, wherein the supplemental data is to be presented during at least a portion of a length of the broadcast data.

96. A computer readable medium encoded with processing instructions for implementing a method for receiving supplemental digital data from a supplemental digital data provider, the method comprising:

5 transmitting, to a supplemental digital data provider, schedule information including a time when particular broadcast data is to be transmitted to a group of listeners by a broadcaster;

receiving, from the supplemental digital data provider, supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver.

10 97. An apparatus for receiving supplemental digital data from a supplemental digital data provider, comprising:

means for transmitting, to a supplemental digital data provider, schedule information including a time when particular broadcast data is to be transmitted to a group of  
15 listeners by a broadcaster;

means for receiving, from the supplemental digital data provider, supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver.

20 98. An apparatus for receiving supplemental digital data from a supplemental digital data provider, comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

transmit, to a supplemental digital data provider, schedule information including a time when particular broadcast data is to be transmitted to a group of listeners by a broadcaster;

5 receive, from the supplemental digital data provider, supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver.

99. A method for coordinating supplemental digital data transmissions with broadcast data transmitted by a plurality of broadcasters, the method comprising:

10 receiving schedule information from a plurality of broadcaster traffic management systems, the schedule information including a schedule of broadcast data to be transmitted by a plurality of broadcasters at predetermined times;

15 identifying, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

20 determining supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

transmitting at least a portion of the supplemental digital data to a traffic management system corresponding to the first broadcaster prior to the predetermined time.

100. The method of claim 99, wherein the plurality of broadcasters comprise a  
20 plurality of radio stations.

101. The method of claim 100, wherein the broadcast data comprises analog data transmitted to listeners over a radio frequency.

102. The method of claim 101, wherein the transmission of broadcast data comprises transmission of broadcast data over at least one of an amplitude-modulated radio frequency and a frequency-modulated radio frequency.

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103. The method of claim 102, wherein the supplemental digital data for transmission on a side-band of one of: the amplitude-modulated radio frequency and the frequency-modulated radio frequency.

104. The method of claim 99, wherein said receiving comprises receiving said schedule information on an Internet gateway.

105. The method of claim 99, wherein said transmitting comprises transmitting said supplemental digital data on an Internet gateway.

106. The method of claim 99, wherein the broadcast data comprises an audio track.

107. The method of claim 106, wherein the supplemental digital data comprises multimedia information related to the audio track.

108. The method of claim 107, wherein the supplemental data comprises a text description of at least one of: an artist, a title, and identification data corresponding to the audio track.

109. The method of claim 99, wherein the broadcast data comprises audio data corresponding to a sporting event.

5 110. The method of claim 109, wherein the supplemental digital data comprises multimedia information related to the audio data.

111. The method of claim 110, wherein the supplemental digital data comprises text data corresponding to at least one of:

10 a team, a game score, a player and a statistic corresponding to the sporting event.

112. The method of claim 99, wherein the supplemental digital data is unrelated to the broadcast data.

15 113. The method of claim 112, wherein the supplemental digital data comprises at least one of:

an advertisement for a product, an advertisement for a service, an identification of the first broadcaster, a schedule of further broadcast data for the first broadcaster, a traffic report, a weather report and a news report.

20 114. The method of claim 99, wherein the supplemental digital data comprises a plurality of: multimedia presentations to be simultaneously presented to the receiver of the broadcast data.



115. The method of claim 99, wherein said determining further comprises:

determining said supplemental digital data based on at least one of: a type of the scheduled broadcast data, the time of the broadcast data, a geographic location of the first broadcaster, a broadcast program in which the broadcast data is presented, and demographic information of listeners of the broadcast data.

116. The method of claim 99, wherein the supplemental digital data for broadcast on a mask of one of an amplitude-modulated frequency and a frequency-modulated frequency.

117. The method of claim 99, further comprising:

receiving, from the first broadcaster, a change to schedule information including second broadcast data at the first predetermined time; and

determining second supplemental digital data to be presented to listeners of the second broadcast data; and

transmitting the second supplemental digital data to the first broadcaster before the first predetermined time.

118. The method of claim 99, further comprising:

identifying, from the received schedule information, second broadcast data for transmission by a second broadcaster at a predetermined time;

determining second supplemental digital data to be presented to listeners of the second broadcast data on a digital data receiver; and

transmitting at least a portion of the second supplemental digital data to a second traffic management system corresponding to the second broadcaster prior to the predetermined time.

5           119. The method of claim 99, further comprising:  
  
              identifying, from the received schedule information, broadcast data for  
transmission by a second broadcaster at a second predetermined time;  
  
              determining second supplemental digital data to be presented to listeners of the  
broadcast data on a digital data receiver; and  
  
10           transmitting at least a portion of the second supplemental digital data to a second  
traffic management system corresponding to the second broadcaster prior to the second  
predetermined time.

15           120. The method of claim 99, wherein said supplemental digital data comprises  
advertising data sold by the first broadcaster.

              121. The method of claim 99, wherein said supplemental digital data comprises  
advertising data sold by a party other than the first broadcaster.

20           122. The method of claim 99, wherein a time for presentation of the supplemental  
digital data is selectable by the listener.

123. The method of claim 99, wherein said selecting comprises selecting a group of supplemental digital data to be presented to a listener of the broadcast data.

124. The method of claim 123, wherein the group of supplemental data are to be displayed continuously during a length of the broadcast data.

125. The method of claim 123, wherein the group of supplemental data are to be presented sequentially during a length of the broadcast data.

126. The method of claim 99, wherein the supplemental data is to be presented during at least a portion of a length of the broadcast data.

127. A computer readable medium encoded with processing instructions for implementing a method for coordinating supplemental digital data transmissions with broadcast data transmitted by a plurality of broadcasters, the method comprising:

receiving schedule information from a plurality of broadcaster traffic management systems, the schedule information including a schedule of broadcast data to be transmitted by a plurality of broadcasters at predetermined times;

identifying, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

determining supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

transmitting at least a portion of the supplemental digital data to a traffic management system corresponding to the first broadcaster prior to the predetermined time.

128. An apparatus for coordinating supplemental digital data transmissions with broadcast data transmitted by a plurality of broadcasters, comprising:

means for receiving schedule information from a plurality of broadcaster traffic management systems, the schedule information including a schedule of broadcast data to be transmitted by a plurality of broadcasters at predetermined times;

means for identifying, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

means for determining supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

means for transmitting at least a portion of the supplemental digital data to a traffic management system corresponding to the first broadcaster prior to the predetermined time.

129. An apparatus for coordinating supplemental digital data transmissions with broadcast data transmitted by a plurality of broadcasters, comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

receive schedule information from a plurality of broadcaster traffic

management systems, the schedule information including a schedule of broadcast data to be transmitted by a plurality of broadcasters at predetermined times;

identify, from the received schedule information, broadcast data for transmission by a first broadcaster at a predetermined time;

5 determine supplemental digital data to be presented to listeners of the broadcast data on a digital data receiver; and

transmit at least a portion of the supplemental digital data to a traffic management system corresponding to the first broadcaster prior to the predetermined time.

10 130. A method of selecting supplemental digital data for transmission with broadcast data, comprising:

identifying a priority for a plurality of frames corresponding to broadcast schedule information;

15 assigning each of a group of supplemental digital data to at least one frame, based on a type of the supplemental data;

assigning each of the group of supplemental digital data a weight value; and

selecting each of the supplemental digital data for presentation with broadcast data in an order based on the priority of the assigned frame and based further on the assigned weight value.

20 131. The method of claim 130, wherein said plurality of frames includes a first frame corresponding to related digital data; a second frame corresponding to independent digital data, a

third frame corresponding to a specific time; a fourth frame corresponding to a broadcast program and a fifth frame corresponding to a day part.

132. The method of claim 131, wherein the priority assigned to said frames includes the first frame having a highest priority, the second frame having a second highest priority, the third frame having a third highest priority, the fourth frame having a fourth highest priority, and the fifth frame having a fifth highest priority.

133. The method of claim 131, wherein said weighted values comprise a hierarchy of values.

134. The method of claim 133, wherein said weighted values are assigned based on a monetary value received for each of said supplemental digital data.

135. The method of claim 131, wherein said type comprises related digital data and independent digital data.

136. The method of claim 135, wherein said related digital data includes multimedia information corresponding to current broadcast data.

137. The method of claim 135, wherein said independent digital data does not comprise information corresponding to current broadcast data.

138. The method of claim 135, wherein said independent digital data includes multimedia information corresponding to at least one of: traffic data, news data, weather data and advertisement data.

5 139. The method of claim 135, wherein said independent digital data includes time-specific data, broadcast program-specific data, and day part-specific data.

140. The method of claim 130, further comprising designating a panel on a digital data receiver for said presentation.

10 141. The method of claim 140, wherein said designating is based on a display size of a panel on the digital data receiver and a size of the supplemental digital data.

15 142. The method of claim 130, further comprising transmitting said supplemental digital data in a plurality of data formats to accommodate a plurality of digital data receivers.

20 143. The method of claim 142, wherein said data formats include at least one of: an extended mark-up language (XML) format, a hyper-text transfer protocol (HTTP) format, a graphics interchange (GIF) format, a tagged image file format (TIFF) format a moving pictures expert group (MPEG or MPEG-3) format and a joint photographers expert group (JPEG) format.

144. A computer readable medium encoded with processing instructions for implementing a method for selecting supplemental digital data for transmission with broadcast data, the method comprising:

identifying a priority for a plurality of frames corresponding to broadcast schedule

5 information;

assigning each of a group of supplemental digital data to at least one frame, based on a type of the supplemental data;

assigning each of the group of supplemental digital data a weight value; and

selecting each of the supplemental digital data for presentation with broadcast data in an order based on the priority of the assigned frame and based further on the assigned weight value.

145. An apparatus for selecting supplemental digital data for transmission with broadcast data, comprising:

means for identifying a priority for a plurality of frames corresponding to broadcast schedule information;

means for assigning each of a group of supplemental digital data to at least one frame, based on a type of the supplemental data;

means for assigning each of the group of supplemental digital data a weight value;

20 and

means for selecting each of the supplemental digital data for presentation with broadcast data in an order based on the priority of the assigned frame and based further on the assigned weight value.



146. An apparatus for selecting supplemental digital data for transmission with broadcast data, comprising:

a processor; and

5 a memory in communication with the processor, the memory for storing a plurality of processing instructions for enabling the processor to:

select a priority for a plurality of frames corresponding to broadcast schedule information;

assign each of a group of supplemental digital data to at least one frame, based on a type of the supplemental data;

assign each of the group of supplemental digital data a weight value; and

select each of the supplemental digital data for presentation with broadcast data in an order based on the priority of the assigned frame and based further on the assigned weight value.

147. A method for presenting audial supplemental data with broadcast data, comprising:

selecting audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and

20 providing an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

148. The method of claim 147, wherein said supplemental digital data comprises advertising data.

149. The method of claim 147, wherein said supplemental digital data comprises at least one of: news data, traffic data and weather data.

150. A computer readable medium encoded with processing instructions for implementing a method for presenting audial supplemental data with broadcast data, the method comprising:

selecting audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and

providing an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

151. An apparatus for presenting audial supplemental data with broadcast data, comprising:

means for selecting audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and

means for providing an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

152. An apparatus for presenting audial supplemental data with broadcast data, comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

select audial supplemental digital data for presentation on a digital data receiver at

5 a time selected by a listener; and

provide an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

10 153. A method for presenting audial supplemental data with broadcast data, comprising:

transmitting audial supplemental data for presentation on a digital data receiver upon selection by a listener; and

transmitting an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

154. The method of claim 153, further comprising:

receiving the supplemental audial data from a supplemental digital data provider.

20 155. The method of claim 154, wherein the supplemental audial data comprises advertising data.

156. The method of claim 155, wherein the advertising data is sold by the supplemental digital data provider.

157. The method of claim 155, wherein the advertising data is sold by the broadcaster.

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158. The method of claim 154, wherein said supplemental digital data comprises at least one of: news data, traffic data and weather data.

159. A computer readable medium encoded with processing instructions for implementing a method for presenting audial supplemental data with broadcast data, the method comprising:

transmitting audial supplemental data for presentation on a digital data receiver upon selection by a listener; and

transmitting an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

160. An apparatus for presenting audial supplemental data with broadcast data, comprising:

means for transmitting audial supplemental data for presentation on a digital data receiver upon selection by a listener; and

means for transmitting an instruction with the audial supplemental data to maintain a lower volume of broadcast data upon selection of the audial supplemental data by the listener.

161. An apparatus for presenting audial supplemental data with broadcast data,  
comprising:

a processor; and

5 a memory in communication with the processor, the memory for storing a  
plurality of processing instructions enabling the processor to:

transmit audial supplemental data for presentation on a digital data  
receiver upon selection by a listener; and

transmit an instruction with the audial supplemental data to maintain a  
lower volume of broadcast data upon selection of the audial supplemental data by the listener.

162. A method for entering into a commercial transaction using a digital data receiver  
presenting supplemental data, the method comprising:

receiving broadcast data over a radio frequency on a digital data receiver;

receiving, with the broadcast data, supplemental digital data including advertising  
data; and

transmitting, through the digital data receiver, an indication to purchase an item  
corresponding to the advertising data.

20 163. The method of claim 162, wherein said transmitting comprises transmitting a  
wireless signal to an Internet gateway, the wireless signal indicative of the advertising data and  
an identification of the purchaser of the item.

164. The method of claim 162, further comprising:

providing an identification of at least one of a financial account and a mailing address to an Internet web site for completing the purchase.

5           165. The method of claim 164, wherein said providing is performed prior to said transmitting.

166. The method of claim 164, wherein said providing is performed after said transmitting.

10           167. The method of claim 162, wherein said identification of the purchaser corresponds to a signal indicative of a particular digital data receiver belonging to the purchaser.

15           168. The method of claim 162, wherein said transmitting comprises transmitting of the broadcaster.

169. The method of claim 162, wherein the broadcast data comprises analog data transmitted over the radio frequency.

20           170. The method of claim 162, wherein said receiving broadcast data comprises receiving on at least one of an amplitude-modulated radio frequency and a frequency-modulated radio frequency.

171. The method of claim 170, wherein the supplemental digital data comprises multimedia information related to the audio track.

172. The method of claim 162, wherein the broadcast data comprises audio data  
5 corresponding to a sporting event.

173. The method of claim 172, wherein the supplemental digital data comprises multimedia information related to the sporting event.

174. The method of claim 162, wherein the supplemental digital data is unrelated to the  
10 broadcast data.

175. The method of claim 174, wherein the supplemental digital data comprises at least  
one of:

15 an advertisement for a product, an advertisement for a service, an identification of the first broadcaster, a schedule of further broadcast data for the first broadcaster, a traffic report, a weather report and a news report.

176. The method of claim 162, wherein the supplemental digital data comprises a  
20 plurality of multimedia presentations to be simultaneously presented to the receiver of the broadcast data.

177. The method of claim 162, wherein a time for presentation of the supplemental digital data is selected by the listener

178. The method of claim 162, wherein the supplemental data is presented during at least a portion of a length of the broadcast data.

179. A computer readable medium encoded with processing instructions for implementing a method for entering into a commercial transaction using a digital data receiver presenting supplemental data, the method comprising:

receiving broadcast data over a radio frequency on a digital data receiver;

receiving, with the broadcast data, supplemental digital data including advertising data; and

transmitting, through the digital data receiver, an indication to purchase an item corresponding to the advertising data.

180. An apparatus for entering into a commercial transaction using a digital data receiver presenting supplemental data, comprising:

means for receiving broadcast data over a radio frequency on a digital data receiver;

means for receiving, with the broadcast data, supplemental digital data including advertising data; and

means for transmitting, through the digital data receiver, an indication to purchase an item corresponding to the advertising data.



181. An apparatus for entering into a commercial transaction using a digital data receiver presenting supplemental data, the method comprising:

- a processor; and
- 5 a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:
  - receive broadcast data over a radio frequency on a digital data receiver;
  - receive, with the broadcast data, supplemental digital data including advertising data; and
  - 10 transmit, through the digital data receiver, an indication to purchase an item corresponding to the advertising data.

182. A method for providing information using a digital data receiver, the method comprising:

- receiving broadcast data over a radio frequency on a digital data receiver;
- receiving, with the broadcast data, supplemental digital data including an invitation to a listener to submit a response; and
- transmitting, through the digital data receiver, an indication of the response requested in the supplemental digital data.

183. The method of claim 182, wherein the response comprises at least one of: a request for information from the broadcaster, participation in a contest sponsored by the broadcaster, and participation in a promotion offered by the broadcaster.

184. A computer readable medium encoded with processing instructions for implementing a method for providing information using a digital data receiver, the method comprising:

- 5 receiving broadcast data over a radio frequency on a digital data receiver;
- receiving, with the broadcast data, supplemental digital data including an invitation to a listener to submit a response; and
- transmitting, through the digital data receiver, an indication of the response requested in the supplemental digital data.

185. An apparatus for providing information using a digital data receiver, comprising:

- means for receiving broadcast data over a radio frequency on a digital data receiver;
- means for receiving, with the broadcast data, supplemental digital data including an invitation to a listener to submit a response; and
- means for transmitting, through the digital data receiver, an indication of the response requested in the supplemental digital data.

186. An apparatus for providing information to a broadcaster using a digital data receiver presenting supplemental data, comprising:

- a processor; and
- a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

receive broadcast data over a radio frequency on a digital data receiver;  
 receive, with the broadcast data, supplemental digital data including an  
 invitation to a listener to submit a response; and

transmit, through the digital data receiver, an indication of the response  
 5 requested in the supplemental digital data.

187. A method for accomplishing a commercial transaction using a digital data  
 receiver presenting supplemental digital data, the method comprising:

10 providing supplemental digital data including advertising data to be presented to a  
 listener of broadcast data over a radio frequency on a digital data receiver; and

receiving, from the listener, a wireless signal including an identification of the  
 listener and an indication to purchase an item corresponding to the advertising data.

15 188. The method of claim 187, further comprising:  
 retrieving, from an Internet site, an identification of a financial account and a  
 mailing address for completing the purchase by the listener.

189. The method of claim 187, wherein the broadcast data comprises analog data  
 20 transmitted to listeners over a radio frequency.

190. The method of claim 187, wherein the supplemental digital data is provided for transmission on a side-band of one of: an amplitude-modulated radio frequency and a frequency-modulated radio frequency.

5 191. The method of claim 187, wherein said receiving comprises receiving said wireless signal via an Internet gateway.

192. The method of claim 187, wherein said providing comprises transmitting said supplemental digital data to a broadcaster via an Internet gateway.

10 193. The method of claim 187, wherein said providing comprises transmitting said supplemental digital data to a listener via a radio frequency.

15 194. The method of claim 187, wherein the supplemental digital data comprises at least one of:  
an advertisement for a product and an advertisement for a service.

20 195. The method of claim 187, wherein the supplemental digital data comprises a plurality of multimedia presentations to be simultaneously presented to the receiver of the broadcast data.

196. The method of claim 187, wherein said providing further comprises:

determining said supplemental digital data based on at least one of: a type of the scheduled broadcast data, the time of the broadcast data, a geographic location of the first broadcaster, a broadcast program in which the broadcast data is presented, and demographic information of listeners of the broadcast data.

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197. The method of claim 187, wherein said supplemental digital data comprises advertising data sold by a broadcaster.

198. The method of claim 187, wherein said supplemental digital data comprises advertising data sold by a party other than a broadcaster.

199. The method of claim 187, wherein a time for presentation of the supplemental digital data is selectable by the listener.

200. The method of claim 187, wherein said providing comprises providing a group of supplemental digital data to be presented to a listener of the broadcast data.

201. The method of claim 200, wherein the group of supplemental data is to be displayed continuously during a length of the broadcast data.

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202. The method of claim 200, wherein the group of supplemental data is to be presented sequentially during a length of the broadcast data.

203. The method of claim 187, wherein the supplemental data is to be presented during at least a portion of a length of the broadcast data.

204. A computer readable medium encoded with processing instructions for  
 5 implementing a method for accomplishing a commercial transaction using a digital data receiver presenting supplemental digital data, the method comprising:

providing supplemental digital data including advertising data to be presented to a listener of broadcast data over a radio frequency on a digital data receiver;

10 receiving, from the listener, a wireless signal including an identification of the listener and an indication to purchase an item corresponding to the advertising data.

205. An apparatus for accomplishing a commercial transaction using a digital data receiver presenting supplemental digital data, comprising:

15 means for providing supplemental digital data including advertising data to be presented to a listener of broadcast data over a radio frequency on a digital data receiver; and

means for receiving, from the listener, a wireless signal including an identification of the listener and an indication to purchase an item corresponding to the advertising data.

20 206. An apparatus for accomplishing a commercial transaction using a digital data receiver presenting supplemental digital data, comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

provide supplemental digital data including advertising data to be presented to a listener of broadcast data over a radio frequency on a digital data receiver; and receive, from the listener, a wireless signal including an identification of the listener and an indication to purchase an item corresponding to the advertising data.

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207. A method for presenting audial supplemental data with broadcast data, comprising:

selecting audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and

providing an instruction with the audial supplemental data to buffer the broadcast data upon selection of the audial supplemental digital data by the listener, wherein the buffered broadcast data may resume upon completion of the presentation of the audial supplemental digital data.

208. The method of claim 207, wherein said audial supplemental digital data comprises advertising data.

209. The method of claim 207, wherein said audial supplemental digital data comprises at least one of: news data, traffic data and weather data.

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210. A computer readable medium encoded with processing instructions for implementing a method for presenting audial supplemental data with broadcast data, the method comprising:

selecting audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and

providing an instruction with the audial supplemental data to buffer the broadcast data upon selection of the audial supplemental digital data by the listener, wherein the buffered broadcast data may resume upon completion of the presentation of the audial supplemental digital data.

211. An apparatus for presenting audial supplemental data with broadcast data, comprising:

means for selecting audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and

means for providing an instruction with the audial supplemental data to buffer the broadcast data upon selection of the audial supplemental digital data by the listener, wherein the buffered broadcast data may resume upon completion of the presentation of the audial supplemental digital data.

212. An apparatus for presenting audial supplemental data with broadcast data, comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions enabling the processor to:

select audial supplemental digital data for presentation on a digital data receiver at a time selected by a listener; and



provide an instruction with the audial supplemental data to buffer the broadcast data upon selection of the audial supplemental digital data by the listener, wherein the buffered broadcast data may resume upon completion of the presentation of the audial supplemental digital data.